

UNI-DIRECTIONAL KNIFE GATE VALVE SCW SERIES



KGV SCW SERIES WITH D/A PNEUMATIC ACTUATOR



KGV SCW SERIES WITH RISING STEM AND HANDWHEEL

The SCW series knife gate is a uni-directional mecano-welded square valve, soft or metal-metal seated, suitable to handle powders, granulates and highly solid loaded mediums at low pressure, mainly used in bulk handling and silo outlet applications.

**GENERAL FEATURES**

- One piece body fabricated design
- Square or rectangular shaped knife gate valve
- Passage frames fabricated from carbon steel or stainless steel
- Available with resilient seat or metal-metal seat
- With adjustable stuffing box
- The internal gate wedges and guides ensures a tighter shut off
- Very light weight
- Inlet deflectors can be used for abrasive mediums
- Easy drive replacement
- Proximity and limit switch mounting points

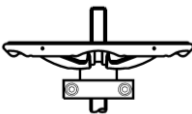
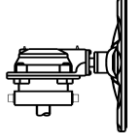
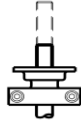
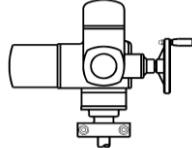

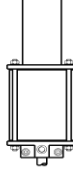

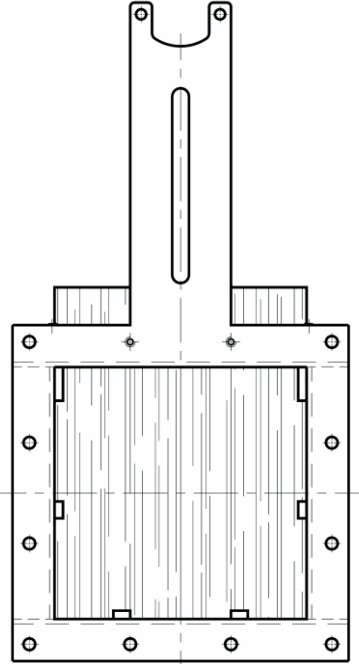
**APPLICATION FIELDS**

- Bulk handling
- Food and beverage
- Chemical process
- Exhaust gas
- Silo outlets
- Etc

**TECHNICAL DATA**

- **Size range:**  
DN-150 x DN-150 to DN-600 x DN-600  
(Larger diameters under request)
- **Working pressure:**  
DN-150 x DN-150 to DN-300 x DN-300: 3 kg/cm<sup>2</sup>  
DN-350 x DN-350 to DN-600 x DN-600: 2 kg/cm<sup>2</sup>  
(For higher pressure, please ask factory)
- **Coating:**  
RAL 5017, 150 microns epoxy coated
- **Directives:**  
Pressure equipment directive 97/23/CE  
DIR 2006/42/CE (MACHINES)

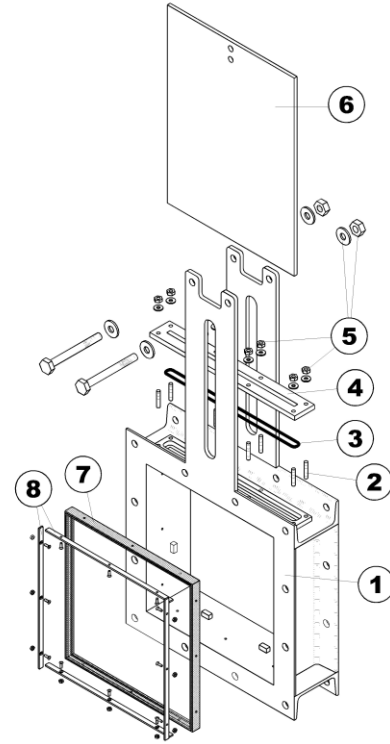
ASSEMBLY CONFIGURATION

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">OPERATION</p>	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center; margin: 10px;">  <p>Rising stem handwheel</p> </div> <div style="text-align: center; margin: 10px;">  <p>Gearbox</p> </div> <div style="text-align: center; margin: 10px;">  <p>Rising stem coupling A</p> </div> <div style="text-align: center; margin: 10px;">  <p>Electric actuator</p> </div> <div style="text-align: center; margin: 10px;">  <p>Double acting pneumatic actuator</p> </div> <div style="text-align: center; margin: 10px;">  <p>Spring-return pneumatic actuator</p> </div> <div style="text-align: center; margin: 10px;">  <p>Oil hydraulic actuator</p> </div> </div>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BODY AND PLATES</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">ACCESSORIES</p>	<ul style="list-style-type: none"> <li>- Locking device</li> <li>- Overriding actuator</li> <li>- Mechanical limit switches</li> <li>- Proximity limit switches</li> <li>- Mechanical position indicator</li> <li>- Deflector cone (Ni-hard)</li> <li>- Solenoid valve</li> <li>- Etc.</li> </ul>

MATERIAL SPECIFICATION & PART LIST

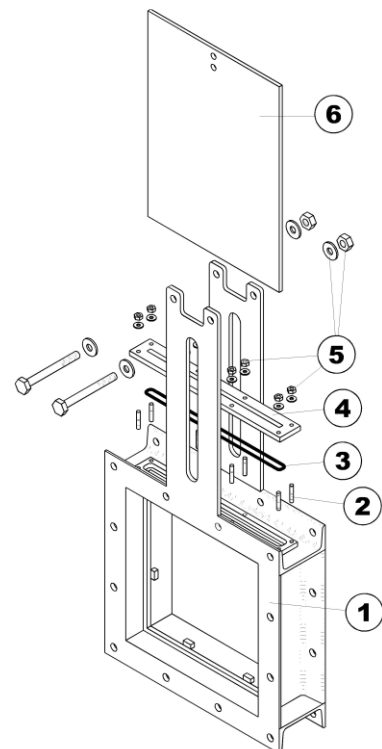
No.	DESCRIPTION	MATERIAL
1	Body	Carbon steel (Standard) AISI 316, AISI 310, DUPLEX2205 (optional)
2	Stud bolts	A4
3	Packing material	PTFE+NBR (standard) PTFE+EPDM, GRAPHITE, ARAMIDE (optional)
4	Packing gland	Carbon steel (standard) AISI 316, AISI 310, DUPLEX2205 (optional)
5	Screws and nuts	A4
6	Gate	AISI 316 (standard) AISI316TI, DUPLEX2205, SMO254 (optional)
7	Profile seat	NBR (standard) EPDM, VITON, PTFE, WHITE SILICONE
8	Seal retainer frame	Carbon steel (standard) AISI 316 (optional)
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium
-	Hand-protections	1.0580 (standard) SS 316 (optional)

Figure 1. Exploded view of KGV SCW series **with profile seat (tight version)**



No.	DESCRIPTION	MATERIAL
1	Body	Carbon steel (Standard) AISI 316, AISI 310, DUPLEX2205 (optional)
2	Stud bolts	A4
3	Packing material	PTFE+NBR (standard) PTFE+EPDM, GRAPHITE, ARAMIDE (optional)
4	Packing gland	Carbon steel (standard) AISI 316, AISI 310, DUPLEX2205 (optional)
5	Screws and nuts	A4
6	Gate	AISI 316 (standard) AISI316TI, DUPLEX2205, SMO254 (optional)
-	Stem	SS 316
-	Bearing	1.0401 (standard) SS 316 (optional)
-	Handwheel	1.0037
-	Pneumatic act.	Aluminium
-	Hand-protections	1.0580 (standard) SS 316 (optional)
-	Metal-metal seat	Carbon steel (standard) AISI 316 (optional)

Figure 2. Exploded view of KGV SCW series with **metal-metal seat**



## APPLICATION AND TEMPERATURE RANGE

SEAT MATERIALS			
Material	Min. temperature (°C)	Max. temperature (°C)	APPLICATIONS
NBR	-30	+80	Hydrocarbons and biogas waste
EPDM	-30	+90	Clean and chlorided water
VITON	-40	+180	Organic acids, hydrocarbons and heat resistant
PTFE	-10	+200	Heat, friction, acids, chemical and corrosion resistant
POLIURETHANE	-10	+80	Abrasive mediums/mineral handling
WHITE SILICONE	-20	+180	Food industry (FDA conformity)
METAL-METAL	-30	+400	Solids, abrasive/high temperature mediums

*\*More details and other sealing materials under request.*

PACKING MATERIALS			
Material	Min. temperature (°C)	Max. temperature (°C)	APPLICATIONS
COTTON-PTFE	-30	+100	Hydrocarbons
PURE PTFE	-10	+200	Heat, friction, acids, chemical and corrosion resistant
ARAMIDE	-40	+250	Bulk handling
GRAPHITE	-40	+300	Hydrocarbons, heat resistant and solids
SPECIAL PACKING FOR HIGH TEMPERATURE	-10	+1000	High temperature

*\*More details and other sealing materials under request.*

DIMENSIONAL DRAWINGS

Figure 3. KGV SCW series rising stem & handwheel

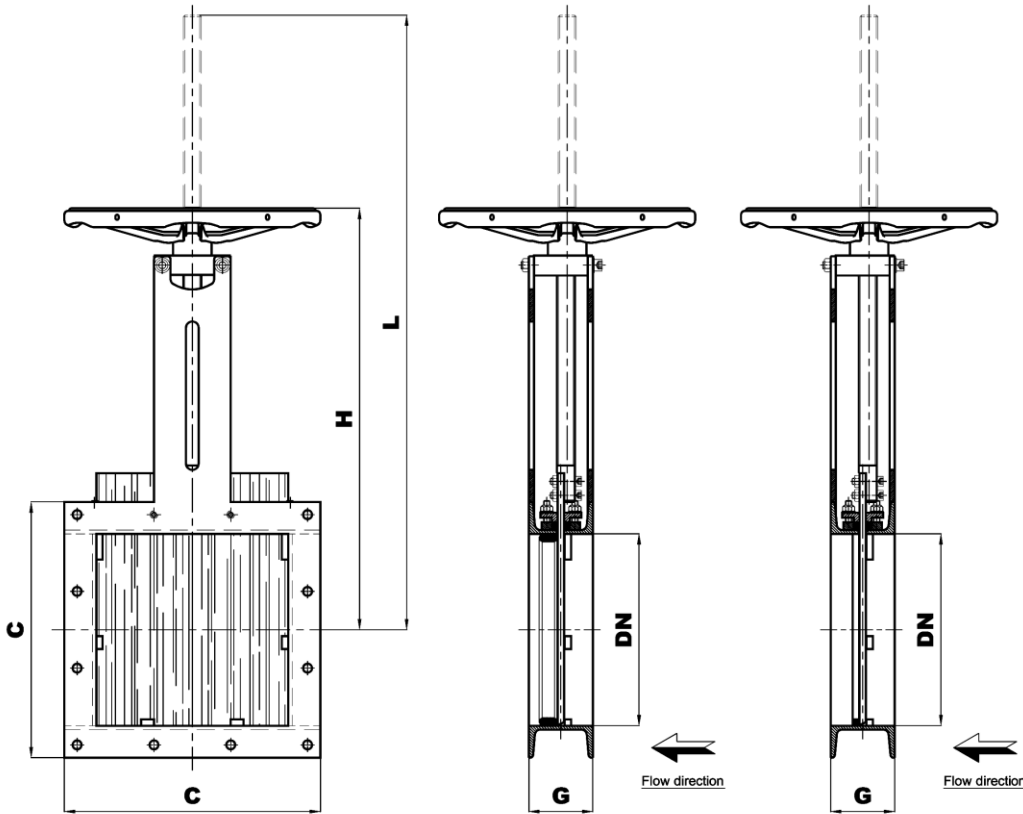
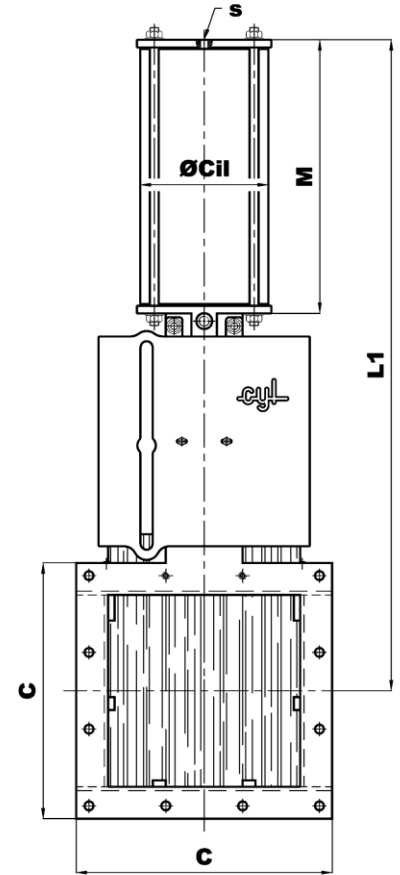


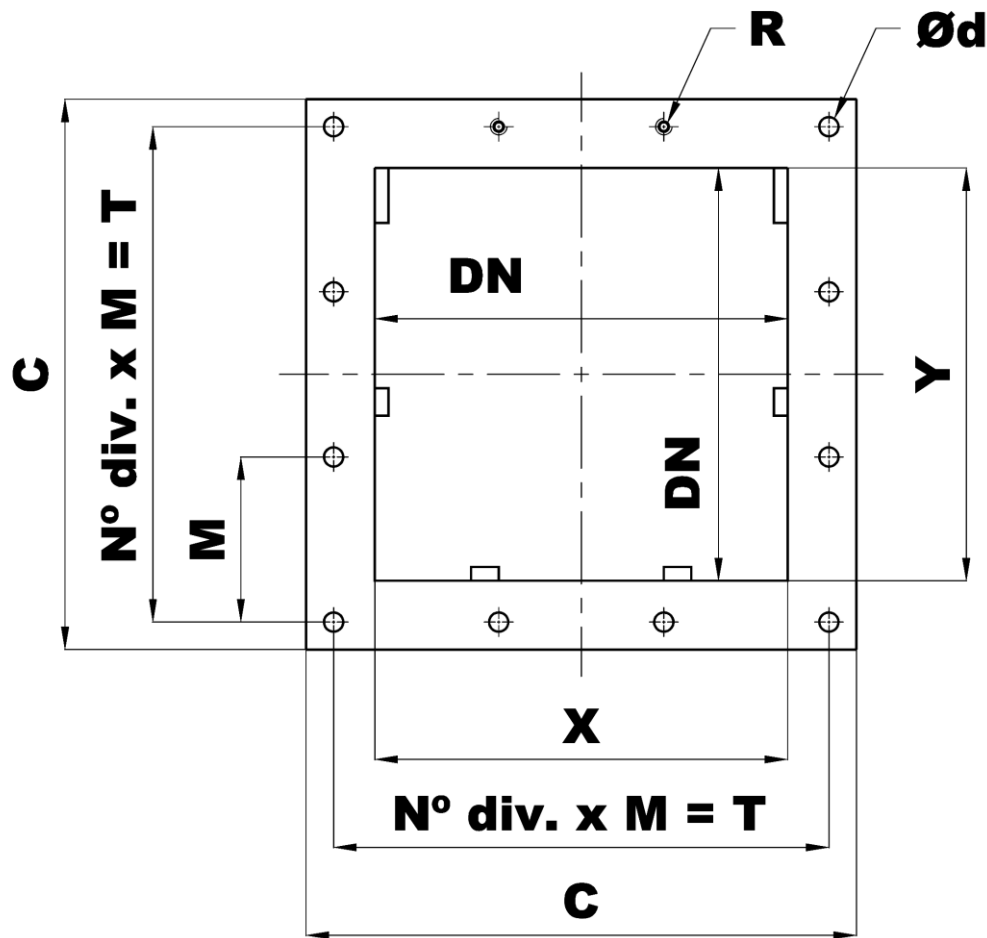
Figure 4. KGV SCW series with double acting pneumatic actuator



DN	G	C x C	L	H	Ø V	L1	M	Ø Cil	S
150 x 150	80	240	558	407	300	616	267	160	3/8" G
200 x 200	80	290	683	482	300	749	325	190	1/2" G
250 x 250	80	340	808	557	300	874	375	190	1/2" G
300 x 300	100	400	961	659	400	1018	428	190	1/2" G
350 x 300	100	450	1081	729	400	1159	499	250	1/2" G
400 x 400	100	500	1227	825	400	1304	549	250	1/2" G
450 x 450	100	550	1368	860	500	1426	591	250	1/2" G
500 x 500	100	600	1493	985	500	1551	641	250	1/2" G
600 x 600	100	700	1743	1135	500	1783	741	250	1/2" G

Note: for bigger sizes, please ask factory.

FLANGE DRILLING



X x Y	●	○	R	Ø d	C x C	N° div. x M = T
150 x 150	1	7	M-12	Ø 14	240 x 240	2 x 105 = 210
200 x 200	2	10	M-12	Ø 14	290 x 290	3 x 85 = 255
250 x 250	2	10	M-12	Ø 14	340 x 340	3 x 103 = 309
300 x 300	2	10	M-12	Ø 14	400 x 400	3 x 120 = 360
350 x 300	2	10	M-12	Ø 14	450 x 450	3 x 140 = 420
400 x 400	3	13	M-12	Ø 14	500 x 500	4 x 117,5 = 470
450 x 450	3	13	M-12	Ø 14	550 x 550	4 x 130 = 520
500 x 500	3	13	M-12	Ø 14	600 x 600	4 x 142,5 = 570
600 x 600	3	13	M-16	Ø 14	700 x 700	4 x 167,5 = 670

- Threaded holes
- Through holes

## ORDERING GUIDE

SERIES	OPERATIONS	BODY MATERIAL	DNxDN	SEAT MATERIAL	BODY TYPE
SCW-SERIES	V	18		NI	W
	V → Handwheel r.s	18 → Carbon steel		NI → NBR	W → Semi lugged (WAFER)
	VR → Handwheel r.s + Bevel Gearbox	17 → Fully stainless steel		EP → EPDM	
	B → Iso top flange r.s			VI → VITON	
	BR → Iso top flange r.s. + Bevel Gearbox			TE → PTFE	
	M → Electric actuator r.s.			PU → POLIURETHANE	
	MR → Electric actuator r.s. + Bevel Gearbox			MET → METAL-METAL	
	N → D/A pneumatic actuator				
	SE → S/A pneumatic actuator				
	H → Oil hydraulic actuator				